



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/023,279	02/13/1998	JAY RUBINSTEIN	UIOWA-26	6755

7590 11/19/2003

FLESHNER & KIM, LLP  
14500 AVION PARKWAY  
SUITE 125  
CHANTILLY, VA 20151

EXAMINER

HARVEY, DIONNE

ART UNIT	PAPER NUMBER
2643	23

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/023,279

Applicant(s)  
Rubinstein

Examiner  
Dionne Harvey

Art Unit  
2643



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 22-28 is/are allowed.
- 6) ☒ Claim(s) 11, 13, 15-18, 20, 21, and 29-31 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 22
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2643

## **DETAILED ACTION**

### ***Claim Objections***

Claim 19 is objected to because of the following informalities: it is dependent upon a canceled claim. Accordingly, Claim 19 has not been further treated on its merits.

### ***Claim Rejections - 35 U.S.C. § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16, 29 and all claims dependent thereon, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 16 recites "...the plurality of electrical signals is capable of causing statistically independent activity..." Claim 29 recites "...second signal is capable of inducing a random pattern..." Both are vague and indefinite. Correction is required.

### ***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2643

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11,13,15,20,21,29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lippa (US 6,377,693).

Regarding claims 11 and 15, in figure 2, Lippa teaches a method of generating a driving signal for an auditory implant, comprising: receiving a first signal (10); generating a second signal(22,12) that causes pseudo-spontaneous activity in an acoustic nerve; and applying the signals to the acoustic nerve. In column 2, lines 34-36, Lippa teaches that the applicator may be an electrode which directly applies the signal to a selected portion of the body. It is fair to conclude that for the invention of Lippa to be effective in the reduction of tinnitus and/or improving sensory response, the signal must reach the user's acoustic nerve. Lippa does not teach that the first and second signals are combined.

However, as discussed in the specification of the immediate application, specifically on page 28, beginning at line 11, the immediate inventor discloses that the first and second signals may be delivered separately to the auditory nerve. Since the combination of the first and second signals is not critical to the effectiveness and operation of said device, It would have been obvious for one of ordinary skill in the art at the time of the invention, to elect to combine the first and second signals for application to the acoustic nerve, as this would reduce the number of electrodes needed for implantation in the user.

Art Unit: 2643

Regarding claim 13, In column 2, lines 1-10, Lipa teaches that the first signal represents at least one of speech, emergency signals ( as broadly claimed), and control information (as broadly claimed).

Regarding claim 20, Since the second signal (22,12) represents auditory stimuli, when the wearer in the absence of auditory stimuli, i.e., the second signal is thereby not applied.

Regarding claim 21, Lipa teaches that the second signal includes one of (I) a pulse train generating substantially continuous pseudospontaneous activity, (ii) a broad band noise, and (iii) at least fluctuations in amplitude greater than prescribed amount at a frequency above approximately 2k Hz that causes statistically independent activity in a plurality of nerve fibers of the nerve, wherein the driving signal is used to modulate a carrier signal.

*should have been USC 102*  
Regarding claim 29, in figure 2, Lipa teaches a method of modifying a neural prosthetic apparatus that receives an information signal and supplies a corresponding electrical signal to stimulate an auditory nerve, comprising: providing a pseudospontaneous signal generator (12,22) that generates a second signal; and providing an electrical coupling means (16a) for supporting an electrical connection from the pseudospontaneous signal generator to at least one electrical contact (on the wearers body), and wherein the second signal is capable of inducing a random pattern of activation in the auditory nerve mimicking the spontaneous neural activity of the auditory nerve.

Regarding claim 30, In column 2, lines 1-10, Lipa teaches that the first signal represents at least one of speech, emergency signals ( as broadly claimed), and control information (as

Art Unit: 2643

broadly claimed); and that the second signal includes one of (I) a pulse train generating substantially continuous pseudospontaneous activity, (ii) a broad band noise, and (iii) at least fluctuations in amplitude greater than prescribed amount at a frequency above approximately 2k Hz that causes statistically independent activity in a plurality of nerve fibers of the nerve, wherein the driving signal is used to modulate a carrier signal.

***Allowable Subject Matter***

Claims 1-10 and 22-28 are allowed.

***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111. The examiner can normally be reached on Monday through Friday from 8:30am to 6:00pm.

**Any responses to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, DC 20231

**or faxed to:**

Art Unit: 2643

(703) 308-6306, for formal communications for entry

**Or:**

(703) 308-6296, for informal or draft communications, please label "PROPOSED" or "DRAFT".

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor(Receptionist)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Curtis Kuntz, can be reached at (703) 305-4708.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Dionne Harvey whose telephone number is (703) 305-1111.

D.H.

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600